

1. (Currently Amended) A hematocrit sensor comprising:

- a blood circuit having two ends;
- a blood purifier connected to said blood circuit between said two ends and configured to purify blood that is being circulated extracorporeally in said blood circuit; and
- a sensor connected to said blood circuit and configured to measure hematocrit values, the sensor including
  - a housing connected to a portion of said blood circuit,
  - a slot provided with said housing,
  - one of a slit or a plurality of pores included in said slot of said housing,

and

- a light emission device and a single light reception device provided with said housing such that both said light emission device and said single light reception device are in optical connection with each other and face said blood circuit through either said slit or said plurality of pores, respectively.

2. (Previously Presented) The hematocrit sensor of claim 1, further comprising a cover provided at said housing, which covers said slot when said cover is closed.

4. (Previously Presented) The hematocrit sensor of claim 2, further comprising a holding device configured to hold the cover in place when the slot is covered.

6. (Previously Presented) The hematocrit sensor of claim 1, wherein said blood purifier configured to perform dialysis treatment.

7. (Previously Presented) The hematocrit sensor of claim 6, further comprising an ultrafiltration pump, a substitution fluid, and a dialyzing fluid.

8. (Original) The hematocrit sensor of claim 1, further comprising a drip chamber connected to said blood circuit.

9. (Previously Presented) The hematocrit sensor of claim 8, wherein said hematocrit sensor is provided with a fixing device at said housing of said sensor to fix said drip chamber.

11. (Previously Presented) The hematocrit sensor of claim 1, further comprising a blood detector connected to said blood circuit and configured to detect a presence of blood in said blood circuit.

13. (Previously Presented) The hematocrit sensor of claim 1, wherein at least one of said plurality of pores has an adjustable diameter.

emitting light from said light emission device toward blood flowing through said blood circuit;

calculating hematocrit values based on a strength of said light absorption determined by said determining.

said hematocrit values calculated in said calculating are corrected based on a strength of an ambient light received by said single light reception device when said light emission device does not emit said light.

16. (Previously Presented) The method of claim 14, wherein said hematocrit values calculated in said calculating are corrected to compensate an error based on a flow rate of said blood flowing through said blood circuit.

17. (Previously Presented) The method of claim 15, wherein said hematocrit values calculated in said calculating are corrected to compensate an error based on a flow rate of said blood flowing through said blood circuit.

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19. (New) A hematocrit sensor comprising:

a blood purifier connected to the blood circuit between the two ends and configured to purify blood that is being circulated extracorporeally in the blood circuit; and

a housing connected to a portion of the blood circuit,

a slot provided with the housing,

one of a slit or a plurality of pores included in the slot of the

housing, and

a single light emission device and a single light reception device both provided with the housing and configured to be in optical connection with each other and face the blood circuit through either the slit or the plurality of pores, respectively.